

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
5 January 2006 (05.01.2006)

PCT

(10) International Publication Number  
**WO 2006/001532 A1**

(51) International Patent Classification<sup>7</sup>: **B41J 2/16**

(21) International Application Number:  
PCT/JP2005/012268

(22) International Filing Date: 27 June 2005 (27 06 2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004-190480 28 June 2004 (28 06 2004) JP

(71) Applicant (for all designated States except US): **CANON KABUSHIKI KAISHA** [JP/JP], 3-30-2, Shimomaruko, Ohta-ku, Tokyo 1468501 (JP)

(72) Inventors; and

(75) Inventors/Applicants (for US only): **OKANO, Akihiko** [JP/JP], c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 1468501 (JP) **SHIBA, Shoji** [JP/JP], c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 1468501 (JP) **ISHIKURA, Hiroe** [JP/JP], c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 1468501 (JP)

(74) Agents: **OKABE, Masao** et al, No 602, Fuji Bldg, 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo 1000005 (JP)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

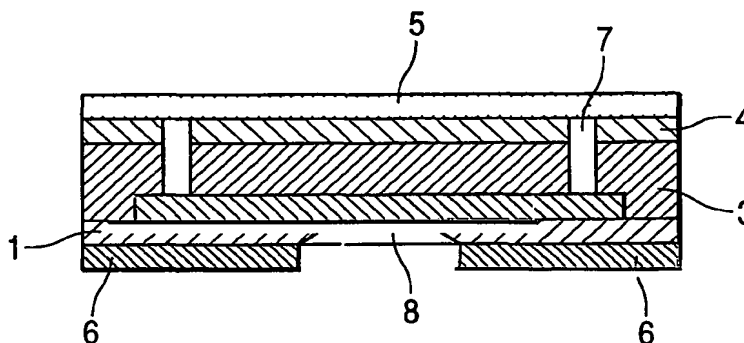
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

— with international search report

For two letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette

(54) Title: **INK JET HEAD MANUFACTURING METHOD AND INK JET HEAD MANUFACTURED BY THE MANUFACTURING METHOD**



(57) Abstract: A method of manufacturing an ink jet head includes a process of forming a photodegradable positive type resist layer on a substrate having energy generating elements, a process of forming a structure which becomes an ink flow path by exposing and developing the photodegradable positive type resist layer, a process of coating the substrate having said structure with a negative type resist layer, a process of forming ink discharge ports in the negative type resist layer, and process of forming the ink flow path by removing said structure, wherein the photodegradable positive type resist layer includes an acrylic copolymer composition, containing at least a unit obtained from (meta) acrylic ester and further containing a unit obtained from (meta) acrylic acid. The acrylic copolymer composition contains the (meta) acrylic acid unit at a proportion of 5 to 30 weight %, and weight average molecular weight of the acrylic copolymer ranges from 50000 to 300000.

WO 2006/001532 A1